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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/039,219	01/02/2002	Chun-Chi Ke	56843 (71987)	2017

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EXAMINER

NGUYEN, DILINH P

ART UNIT	PAPER NUMBER
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2814

DATE MAILED: 06/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/039,219

Applicant(s)

KE ET AL.

Examiner

DiLinh Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 May 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

This application contains claims 5-8 drawn to an invention nonelected with traverse in Paper No. 5. A complete reply to the final rejection must include cancelation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kitaoka et al. (U.S. Pat. 5523608) in view of Mizue et al. (U.S. Pat. 6315465).

Kitaoka et al. disclose a semiconductor device (fig. 1, column 3, lines 45 et seq.) comprising:

a lead frame having a first side and a second side, and formed with a die pad 7 and a plurality of leads surrounding the die pad, wherein the leads are each defined into an inner lead 3, an outer lead 4 and a middle portion positioned between the inner lead and the outer lead;

an encapsulant 8 for encapsulating the lead frame with the outer leads being exposed, wherein a cavity is formed in the encapsulant for exposing the die pad and the inner leads on the first side of the lead frame, allowing a semiconductor chip 1 and bonding wires 5 to be received in the cavity;

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the semiconductor chip 1 mounted in the cavity on the die pad of the first side of the lead frame;

bonding wires 5 formed in the cavity for electrically connecting the semiconductor chip to the inner leads of the lead frame; and

a lid 11 adhered onto the encapsulant for covering an opening of the cavity.

Kitaoka et al. fail to disclose each of the middle portions extends outwardly at sides thereof to form protrusions.

Mizue et al. disclose a semiconductor device (fig. 3) comprising:

a lead frame, wherein the leads are each defined into an inner lead, an outer lead and a middle portion positioned between the inner lead and the outer lead, and each of the middle portions extends outwardly at sides thereof to form protrusions.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Kitaoka et al. to maintain the stability and reliability for the semiconductor device, as shown by Mizue et al.

- Regarding claim 2, it would have been an obvious matter of design choice to form the middle portions of the leads are arranged in a manner that spacing between the adjacent middle portions is 0.10 mm, or equal to or smaller than 0.15 mm.

3. Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kitaoka et al. (U.S. Pat. 5523608) in view of Mizue et al. (U.S. Pat. 6315465) and further in view of Waki et al. (U.S. Pat. 5479051).

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Kitaoka et al. and Mizue et al. fail to disclose a first tape adhered to the second side of the lead frame and a second tape adhered to the first side of the lead frame.

Waki et al. disclose a semiconductor device (figs. 3A and 7A) comprising :
a tape 12 adhered to the first side of the lead frame in a manner free of interference with arrangement of the bonding wires (fig. 3A, column 4, lines 14-22) and plurality of tapes 22a and 22b adhered to the second side of the lead frame (fig. 7A). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Kitaoka et al. and Mizue et al. to increase the quality and reliability for the lead frame, as shown by Waki et al.

Response to Arguments

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., Kitaoka and Mizue fail to teach or suggest a semiconductor package having a flash preventing mechanism) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

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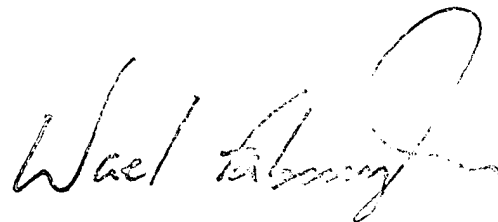
mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DiLinh Nguyen whose telephone number is (703) 305-6983. The examiner can normally be reached on 8:00AM - 6:00PM (M-F).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wael Fahmy can be reached on (703) 308-4918. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

DLN
June 12, 2003



SUPERVISORY PRIMARY EXAMINER
TECHNOLOGY CENTER 2000